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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PARTON, KEVIN S

ART UNIT	PAPER NUMBER
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2153

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DATE MAILED: 04/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/433,427

Applicant(s)

LUDWIG ET AL.

Examiner

Kevin Parton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 01/27/2003 have been fully considered but they are not persuasive. Please see the reasons below and the attached grounds of rejection.
2. Applicant argues "Applicant submits again...and Khan et al." (page 2, paragraph 4 – page 3, paragraph 4). The argument is not persuasive because of the reasons put forth in the previous Office Action. The system of Bittinger et al. provides the same fundamental function of the system as defined in the specification and more specifically in the claims. The system of Bittinger et al. takes a work request and converts it into a format specific to the client/server (figure 2; column 3, lines 35-45; claim 1). This conversion is based upon a connection agreement for a work task (claim 1; column 3, lines 35-45). The connection agreement is the conversion of the client/server specific commands to and from the http data stream. This includes means for converting to a common data stream (http) and for marshalling data from one machine to another (abstract). Whether or not the applications on each machine are workflow applications does not change the basic function of the invention. In addition, the different machines can act as clients or servers depending on the request.

Using this system with workflow applications is just one specific instantiation. Workflow applications are well known in the art and the motivation for combination is shown below. Additionally, mapping tables are a commonly used implementation and are an obvious modification to the system of Bittinger et al. (USPN 6,453,362) as shown below. As the motivation statements show below, this is not merely a reconstruction to meet the presently claimed invention but a set of related applications that render the application as claimed obvious.

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3. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

4. Applicant further argues "Skeen et al...of the present invention" (page 3, paragraph 5 – page 5, paragraph 2). The argument is not persuasive because the Skeen reference was used to show the use of mapping tables in the art. The reference shows a system wherein communication between applications is achieved via connector applications. The required conversions are achieved using mapping tables. Again, the motivation for this combination is repeated below.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

5. Applicant further argues "Kahn et al...prior art rejection" (page 5, paragraph 3-4). The argument is not persuasive because the reference is being used in combination with others. Kahn et al. show a system using workflow applications in a similar manner to the workflow applications of the application. When combined with the format conversion functions of both Bittinger et al. and Skeen et al. (as shown below in the new grounds for rejection) this renders

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the present invention obvious. Please note that all the fundamental functions of the claimed invention are disclosed in Skeen et al. and Bittinger et al. The Kahn reference is used to show the special case a motivation for utilizing workflow applications specifically. Workflow applications are common in the art and the combination of references renders the applicant's invention, as claimed, obvious.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bittinger et al. (USPN 5,754,774) in view of Skeen et al. (USPN 5,557,798) and Khan et al. (USPN 6,157,934).

8. Regarding claims 1 and 10, Bittinger et al. (USPN 5,754,774) disclose a system for connection of a first server computer of a service requestor and a second server computer of a

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service provider, each of said first server computer and said second server computer being connected to at least one client computer comprising:

- a. Means for providing a first and a second connector application for permitting said first server computer access to a copy of said first connector application and for permitting said second server computer access to a copy of said second connector application (column 30, lines 45-54; column 3, lines 36-45).
- b. Means wherein said copies of first and second connector application each comprises a connection agreement for a first work task (column 30, lines 45-54; column 3, lines 36-45).
- c. Means for said first work task to be transposed from said first service terminology to an input data set in common terminology (column 30, lines 54-62; column 3, lines 36-45).
- d. Means for marshalling input data set to said second server computer over a common connection and said marshaled input data set being transposed to a second work task by said second server from common terminology into said second service terminology and said second work task being processed (column 30, line 62 through column 31, line 7; column 3, lines 36-45).

Although the system disclosed by Bittinger et al. (USPN 5,754,774) shows substantial features of the claimed invention, it fails to disclose:

- a. Means wherein first server computer is running a first workflow management system application and said second server computer is running a second workflow management system application.

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- b. Means wherein said first work task is part of a first workflow instance encompassed by said first workflow management system application.
- c. Means wherein said first connector application further comprises a first mapping table including a first service terminology and a common terminology, and which copy of said second connector application further comprises a second mapping table including a second service terminology and said common terminology.
- d. Means wherein first work task is transposed by said first mapping table
- e. Means wherein said marshaled input data is transposed to a second work task by said second mapping table from said common terminology.
- f. Means wherein said marshaled input data is processed by said second workflow management system.

Nonetheless, these features are well known in the art and would have been an obvious modification to the system disclosed by Bittinger et al. (USPN 5,754,774), as evidenced by Skeen et al. (USPN 5,557,798) and Khan et al. (USPN 6,157,934).

In an analogous art, Skeen et al. (USPN 5,557,798) teach a system for translation of requests between servers and clients having:

- a. Means wherein said first connector application further comprises a first mapping table including a first service terminology and a common terminology, and which copy of said second connector application further comprises a second mapping table including a second service terminology and said common terminology.
(figure 11; column 14, line 54 – column 15, line 1). Note that the X.409 format is a common format that can be transported via Ethernet.

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- b. Means wherein first work task is transposed by said first mapping table (figure 11; column 14, line 54 – column 15, line 1). Note that the DEC machine converts to the common format via a conversion table.
- c. Means wherein said marshaled input data is transposed to a second work task by said second mapping table (figure 11; column 14, line 54 – column 15, line 1).

Note that the second application converts from the X.409 format to IBM specific.

Given the teachings of Skeen et al. (USPN 5,557,798), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Bittinger et al. by the use of mapping tables for conversion, as disclosed by Skeen et al. (USPN 5,557,798) in order to allow for configuration changes by the end user or system administrator without additional software development. This also allows for the conversion to always be the same, if a new application is inserted, it must generate a conversion table, but all the other applications are unchanged. Please note that although this reference teaches specific hardware types, the function translates to any applicable platform.

In an analogous art, Khan et al. (USPN 6,157,934) teach a system for workflow management having:

- a. Means wherein first server computer is running a first workflow management system application and said second server computer is running a second workflow management system application (column 2, lines 29-34).
- b. Means wherein said first work task is part of a first workflow instance encompassed by said first workflow management system application (column 2, lines 29-34).

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- c. Means wherein said marshaled input data is processed by said second workflow management system (column 2, lines 29-34).

Given the teachings of Khan et al. (USPN 6,157,934), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Bittinger et al. by employing workflow applications, such as disclosed by Khan et al. (USPN 6,157,934) in order to provide the function of passing work tasks from one server to another and to constrain the message format and type between the servers to this specific application type. Please note that the specification of server to server or server to client communications is not significant in the claim. It is obvious to one of ordinary skill in the art that these machine types are interchangeable and can represent separate processors on a single machine. Please note that this reference is used to show that the motivation for utilizing the basic function as defined above in the special case of workflow applications existing on the machines. Also please note that the terms server and client can be interchangeable depending on the present function of the machine.

9. Regarding claims 2 and 11, Bittinger et al. (USPN 5,754,774) (as applied to claims 1 and 10) teach all the limitations as described above. Further, they teach:

- a. Means wherein said processed second work task generates a result, said result being transposed from said second service terminology into an output data set in said common terminology, said mapped output data set being marshaled to said first server computer over said common connection, and said marshaled output data being transposed from said common terminology into said first service terminology (column 31, lines 58-64; column 3, lines 36-45)

Although the system disclosed by Bittinger et al. (USPN 5,754,774) shows substantial features of the claimed invention, it fails to disclose:

- a. Means wherein said result is transposed by said second mapping table and said mapped output data set being transposed by said first mapping table.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Bittinger et al. (USPN 5,754,774), as evidenced by Skeen et al. (USPN 5,557,798).

In an analogous art, Skeen et al. (USPN 5,557,798) teach a system for translation of requests between servers and clients having:

- a. Means wherein said result is transposed by said second mapping table and said mapped output data set being transposed by said first mapping table (figure 11; column 14, line 54 – column 15, line 1). Note that in the reference, two different platforms share data by converting it to a common format.

Given the teaching of Skeen et al. (USPN 5,557,798), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Bittinger et al. (USPN 5,754,774) by employing the use of a mapping table for conversion, as disclosed by Skeen et al. (USPN 5,557,798) in order to allow for configuration changes by the end user or system administrator without additional software development.

10. Regarding claims 3 and 12, Bittinger et al. (USPN 5,754,774) (as applied to claims 1 and 10) teach all the limitations as described above. They further teach means wherein said copy of said first connector application resides in a first access device of said service requestor; said first access device comprising a first access computer including said first connector application

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(column 30, lines 45-54; column 3, lines 36-45). Please note that the connector application can exist in the client, the server, or in two client machines depending on where the actual processing is taking place.

11. Regarding claims 4 and 13, Bittinger et al. (USPN 5,754,774) (as applied to claims 1 and 10) teach all the limitations as described above. They further teach means wherein said copy of said second connector application resides in a second access device of said service provider; said second access device comprising a second access computer including said second connector application (column 30, lines 45-54; column 3, lines 36-45). Please note that the connector application can exist in the client, the server, or in two client machines depending on where the actual processing is taking place.

12. Regarding claims 5 and 14, Bittinger et al. (USPN 5,754,774) (as applied to claims 1 and 10) teach all the limitations as described above. They further teach means wherein said copy of the first connector application resides in said first server computer of said service requestor (figure 2). Please note that the connector application can exist in the client, the server, or in two client machines depending on where the actual processing is taking place.

13. Regarding claims 6 and 15, Bittinger et al. (USPN 5,754,774) (as applied to claims 1 and 10) teach all the limitations as described above. They further teach means wherein said copy of the second connector application resides in said second server computer of said service provider (figure 2). Please note that the connector application can exist in the client, the server, or in two client machines depending on where the actual processing is taking place.

14. Regarding claims 7 and 16, Bittinger et al. (USPN 5,754,774) (as applied to claims 1 and 10) teach all the limitations as described above. They further teach means wherein the copy of

the first connector application resides in the first client computer (figure 2). Please note that the connector application can exist in the client, the server, or in two client machines depending on where the actual processing is taking place.

15. Regarding claims 8 and 17, Bittinger et al. (USPN 5,754,774) (as applied to claims 1 and 10) teach all the limitations as described above. They further teach means wherein the copy of the second connector application resides in the second client computer (figure 2). Please note that the connector application can exist in the client, the server, or in two client machines depending on where the actual processing is taking place.

16. Regarding claims 9 and 18, Bittinger et al. (USPN 5,754,774) (as applied to claims 1 and 10) teach all the limitations as described above. They further teach means wherein the first workflow application is essentially the same as the second workflow application (column 3, lines 35-45). Note that the connection agreement on each end converts the message to the native format for the client/server application. The applications share data and can provide essentially the same functionality.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Parton whose telephone number is (703)306-0543. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703)305-4792. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-9242 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Kevin Parton
Examiner
Art Unit 2153

ksp
April 21, 2003


GLENTON B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100